

FILE 'HOME' ENTERED AT 13:04:17 ON 04 DEC 2008

=> b caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 13:04:44 ON 04 DEC 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 4 Dec 2008 VOL 149 ISS 23

FILE LAST UPDATED: 3 Dec 2008 (20081203/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s 9068-38-6 (s) (mn or manganese)

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L2 12323 L1

451777 MN

5447 MNS

454993 MN

(MN OR MNS)

413054 MANGANESE

113 MANGANESES

413065 MANGANESE

(MANGANESE OR MANGANESES)

L3 9 L2 (S) (MN OR MANGANESE)

=> s L3 and (inhibit### or modulat### or increas### or decreas### or elevat###)  
2090897 INHIBIT###

411705 MODULAT###  
 4604519 INCREAS###  
 2568123 DECREAS###  
 384482 ELEVAT###  
 L4 3 L3 AND (INHIBIT### OR MODULAT### OR INCREAS### OR DECREAS### OR  
 ELEVAT###)

=> s L4 and py<2004  
 24012945 PY<2004  
 L5 2 L4 AND PY<2004

=> d L5 ibib abs 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:757875 CAPLUS <<LOGINID::20081204>>  
 DOCUMENT NUMBER: 139:272921  
 TITLE: Manganese ion regulation of reverse transcriptase  
 activity, methods of modulating reverse  
 transcriptase, and drug screening and therapeutic use  
 INVENTOR(S): Boeke, Jef D.; Bolton, Eric C.  
 PATENT ASSIGNEE(S): The Johns Hopkins University School of Medicine, USA  
 SOURCE: PCT Int. Appl., 61 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003078650	A2	20030925	WO 2003-US7879	20030312 <--
WO 2003078650	A3	20040311		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003220277	A1	20030929	AU 2003-220277	20030312 <--
US 20050123624	A1	20050609	US 2005-507252	20050128
PRIORITY APPLN. INFO.:			US 2002-363708P	P 20020312
			WO 2003-US7879	W 20030312

AB Methods of identifying agents that modulate reverse transcriptase activity in a cell by affecting manganese ion transport across a membrane of the cell are provided, as are agents identified using such methods. High throughput screening assay for agents that alter manganese transporter activity is disclosed. Also provided are methods of modulating reverse transcriptase activity by effecting manganese ion concentration. In addition, methods of reducing or inhibiting infection of cells with a retrotransposable element are provided.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:351336 CAPLUS <<LOGINID::20081204>>  
 DOCUMENT NUMBER: 137:75669  
 TITLE: Inhibition of reverse transcription in vivo  
 by elevated manganese ion concentration  
 AUTHOR(S): Bolton, Eric C.; Mildvan, Albert S.; Boeke, Jef D.

CORPORATE SOURCE: Department of Molecular Biology and Genetics, The  
Johns Hopkins University School of Medicine,  
Baltimore, MD, 21205, USA  
SOURCE: Molecular Cell (2002), 9(4), 879-889  
CODEN: MOCEFL; ISSN: 1097-2765  
PUBLISHER: Cell Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Mutations in PMR1, a yeast gene encoding a calcium/manganese exporter,  
dramatically decrease Ty1 retro-transposition. Ty1 cDNA is  
reduced in pmr1 mutant cells, despite normal levels of Ty1 RNA and  
proteins. The transposition defect results from Mn2+ accumulation that  
inhibits reverse transcription. Cytoplasmic accumulation of Mn2+  
in pmr1 cells may directly affect reverse transcriptase (RT) activity.  
Trace amts. of Mn2+ potently inhibit Ty1 RT and HIV-1 RT in  
vitro when the preferred cation, Mg2+, is present. Both Mn2+ and Mg2-  
alone activate Ty1 RT cooperatively with Hill coeffs. of 2, providing  
kinetic evidence for a dual divalent cation requirement at the RT active  
site. We propose that occupancy of the B site is the major determinant of  
catalytic activity and that Mn2+ at this site greatly reduces catalytic  
activity.  
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff